

REMARKS

This is in reply to the Office Action mailed 27 June 2007. By this Amendment claims 6, 28 and 36 have been amended. New claims 37-41 have been added.

In the Office Action dated 10 January 2007 the Examiner previously indicated that former claims 6-8, 13-17, 21-22 and 28-29 were allowable if rewritten in independent form. In response, the Applicant amended claim 1 to include the limitations of former claims 2, 3 and 13. Claim 20 was rewritten to include the limitation of claim 21. New claim 36 was added corresponding to original claim 6. The Examiner is respectfully requested to reconsider and allow such claims and the claims which depend therefrom, including new claims 37-41, in view of the following comments.

In the Office Action dated 27 June 2007 the Examiner has rejected claims 1, 4 and 6-10 under 35 U.S.C. 103(a) as being unpatentable over Stowell et al. (US 5215402) in view of Corbin et al. (US 4854771), Pacey et al. (EP0041335) and Wiley et al. (US 5653552).

Stowell et al. relates to a process patented by the Applicant for forming impressions in asphalt surfaces. This process is discussed at page 1 of the Applicant's application. The Stowell et al. process is designed to imprint asphalt to simulate the appearance of cobblestones or brick. After the template is removed and the asphalt is allowed to harden, a thin layer of cementitious coating may be applied to the imprinted asphalt surface to enhance the brick and mortar effect.

Corbin et al. relates to a method of installing preformed pavement materials into asphalt surfaces. The asphalt is first heated until it is pliable and the preformed pavement marking material is positioned on the asphalt. The marking material is then pressed into the asphalt surface with an asphalt roller or the like.

Pacey et al. relates to a preformed road marking formed from a thermoplastic material and which incorporates a reinforcement. The preformed road marking may be heat bonded to the road surface.

Wiley et al. relates to a process for heating an asphalt surface by reciprocating a self-propelled vehicle comprising a series of heaters over the asphalt surface. The asphalt is heated to facilitate subsequent recycling of the asphalt.

Currently pending claim 1 includes the steps of forming a first pattern in an asphalt surface; providing a first pre-formed thermally settable sheet, wherein the sheet is formed of thermoplastic material; providing at least one further pre-formed thermally settable sheet; placing the first pre-formed sheet and the at least one further pre-formed sheet on the asphalt surface in an aligned configuration; and gradually heating the sheets *in situ* to a temperature sufficient to bond the sheets to the asphalt surface in a configuration conforming to the first pattern. As indicated above, Stowell et al. discloses a process for imprinting asphalt when it is in a pliable state, but does not describe thermally settable sheets. Corbin et al. and Pacey et al. describe pavement marking materials formed from thermoplastic which may be bonded to an asphalt surface using heat. None of the prior art references teach or suggest the advantages of gradually heating thermally settable sheets *in situ* to bond the sheets to the asphalt in a configuration *conforming to a first pattern* formed in the asphalt.

The Examiner has asserted that both Stowell et al. and Corbin et al. disclose processes of marking asphalt surfaces and Corbin et al. teaches the use of preformed marking material over coating because of the longer service life. It is submitted that this is an insufficient motivation to combine these references. The Stowell et al. reference describes a technique for creating a simulated brick or cobblestone pattern in asphalt. Stowell et al. advocates spreading a colored concrete slurry on the impressed asphalt surface to enhance the simulated appearance. (Stowell et al., column 3, lines 56-67). The Corbin et al. material furthers its role as a pavement marking by taking on noticeable white or yellow colors (Corbin et al., column 1, lines 12-18). Such pavement marking colors are selected for their obvious and conspicuous nature and generally are not suitable for simulating cobblestone or brick and mortar. The fact that the Corbin et al. material takes on conspicuous colors supports the conclusion that it is adapted for an entirely different purpose than the Stowell et al. invention. Accordingly, Applicant respectfully submits that there is no motivation to combine the Stowell et al. and Corbin et al. references.

It is submitted that neither the Pacey et al. and Wiley et al. references remedy the deficiencies of Corbin et al. Like Corbin et al., Pacey et al. is a pavement marking used for traffic control purposes and the like. For example, the Examiner refers to page 5, line 36- page 6, line 4 of Corbin et al. where arrows are described. Such marking materials are not suitable for simulating cobblestone or brick and mortar. Further, like Corbin et al., Pacey et al. does not describe a process for conforming a thermally settable sheet to a pattern formed in an asphalt surface. Therefore, it is submitted that there is likewise no motivation to combine the Stowell et al. and Pacey et al. references in the manner contemplated by the Examiner.

With respect to page 6 of the Office Action it is submitted that Stowell et al. does not describe a process for heating asphalt "in order to apply a marking material". In Stowell et al. the asphalt is heated to a pliable state in order to form an impression in the asphalt. A cementitious coating may be applied to the imprinted asphalt surface as an additional step after it has been imprinted (Stowell et al, column 3, lines 56-67).

As indicated above, Wiley et al. relates to the field of heating asphalt to facilitate recycling thereof. Wiley et al. does not relate to the field of simulating cobblestone or brick and mortar patterns in asphalt or heating of pavement marking materials formed from thermoplastic. Accordingly, it is submitted there would be no motivation for combining Wiley et al. with the other references noted above.

In the absence of motivation, references cannot be combined. In *In re Fritch*, 972 F.2d 1260, 1265-66 (Fed. Cir. 1992), the Court of the Appeals for the Federal Circuit stated:

'Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination. Under Section 103, teachings or references can be combined only if there is some suggestion or incentive to do so'. Although couched in terms of combining teachings found in the prior art, the same inquiry must be carried out in the context of a purported obvious 'modification' of the prior art. The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification.

It is therefore submitted that claim 1 recites a combination of steps that is not disclosed or suggested in the cited references and is allowable. It is submitted that claims 4 and 6-10 depend from an allowable base claim and are similarly allowable. In regard to claims 6-10, claim 6 recites the step of providing a heating apparatus having a support frame extending over the sheets, wherein at least one heater is mounted for movement relative to the support frame in a travel path which periodically passes over the sheets to thereby gradually increase the temperature thereof. Claim 6 has been amended to provide an antecedent for the term "heater". Support for this amendment can be found, *inter alia*, in paragraphs 32-33 of the application and Figure 3. It is submitted that none of the references cited by the Examiner disclose the subject matter of claim 6. Wiley et al. discloses a vehicular apparatus which travels on an asphalt surface. Wiley et al. does not disclose an apparatus for heating thermally settable sheets and, in particular, does not disclose an apparatus comprising a heater mounted for movement relative to a support frame as recited in claim 6 as amended. It is submitted that the Wiley et al. vehicular apparatus comprising heaters would not be suitable for travel directly on thermoplastic sheets, especially as the sheets become tacky as the thermoplastic melts. With regard to claim 8, the Examiner contends that Wiley "teaches gradually heating the sheet to a temperature of 100-190°C". It is submitted that this is incorrect as Wiley does not disclose heating thermally settable sheets formed of thermoplastic. The passage identified by the Examiner at page 6 of the Office Action refers to heating asphalt rather than thermoplastic sheets.

The Examiner has rejected claims 11, 12, 14 and 16-17 under 35 U.S.C. 103(a) as being unpatentable over Stowell et al. (US 5,215,402) in view of Corbin et al. (US 4854771), Pacey et al. (EP0041335) and further in view of Eigenmann (US 3235436). The Stowell et al., Corbin et al. and Pacey et al. references are described above. Eigenmann relates to road marking equipment for the marking of traffic lines and the like on the pavement of streets and highways. Eigenmann describes how sheet material may be applied on a pavement surface in uninterrupted or spaced strip lengths. Eigenmann does not disclose markings applied in a configuration conforming to a pattern formed in the pavement. With reference to Figure 4 of Eigenmann, road markings applied in a pattern are illustrated, but, as understood, the pattern does not match an underlying pattern formed in the pavement. Further, like Corbin et al. and Pacey et al., Eigenmann is a pavement marking used for traffic control purposes and

the like. Such marking materials are not suitable for simulating cobblestone or brick and mortar in an asphalt surface. Accordingly, there would be no motivation for combining Eigenmann with the teachings of Stowell et al. As explained above, Stowell et al. describes a process for imprinting asphalt for simulating the aesthetically pleasing features of paving stones or cobblestones for decorative purposes. In particular, Stowell et al. discloses spreading a colored concrete slurry on the impressed asphalt surface to achieve a brick and mortar or simulated cobblestone effect. (Stowell et al, column 3, lines 56-67). There is no suggestion in Stowell that any advantage would be achieved by applying strips of road marking as taught Eigenmann in the simulated grout lines (i.e. the impressions) formed between simulated stones or bricks.

In regard to claim 14, it is believed that the Examiner is intending to refer to claim 17. It is submitted that Figure 4 of Eigenmann does not show markings partially surrounded by another one of the markings.

Further, the Examiner contends that Stowell et al. shows the features of dependent claims 16 and 17. It is submitted that this is incorrect since such claims recite sheets of material. The cementitious coating of Stowell et al. is not a pre-formed thermally settable sheet within the meaning of the present claims.

In summary, it is submitted that claims 11, 12, 14 and 16-17 depend from an allowable base claim and are similarly allowable. Further, it is submitted that there is no motivation to combine Eigenmann with Stowell et al. or the other prior art references for the reasons indicated above.

The Examiner has rejected claim 15 under 35 U.S.C. 103(a) as being unpatentable over Stowell et al. (US 5215402) in view of Corbin et al. (US 4854771), Pacey et al. (EP0041335) and further in view of 3M Application of Stamark Pre-Cut symbols and legends. 3M Stamark tape and pre-cut symbols form large road markings (e.g., 'RR' and a large 'X' for a railroad crossing) that look nothing at all like cobblestone or brick and mortar. The Applicant respectfully submits that one would not be motivated to overlay a railroad crossing symbol on the imprinted asphalt surface of Stowell et al. since this would not achieve or enhance the desired brick and mortar or cobblestone appearance.

The Examiner has rejected claims 20 and 23-25 under 35 U.S.C. 103(a) as being unpatentable over Corbin et al. (US 4854771) in view of Stowell et al. (US 5215402). The Examiner contends that both Corbin et al. and Stowell et al. "are directed towards processes involving decorating asphalt surfaces". As submitted above, Corbin et al. relates to traffic control signals and the like applied during roadway construction whereas Stowell et al. relates to simulating the appearance of cobblestone or brick and mortar in asphalt. For the reasons noted above, it is submitted that there is no motivation to combine Corbin et al. and Stowell et al. in the manner contemplated by the Examiner. Stowell et al. does not describe the use of thermally settable sheets formed of thermoplastic. In Stowell et al. the only substrate imprinted is pliable asphalt for the purposes of simulating cobblestone or brick and mortar. As indicated above, the Corbin et al. process is not suitable for simulating cobblestone or brick and mortar. Moreover, Corbin et al. does disclose a template for placement on a thermally settable sheet. Rather, in Corbin et al. the pavement marking material is compressed directly using an asphalt roller or the like.

It is submitted that claims 23-25 depend from an allowable base claim and are similarly allowable. In regard to claim 23, it is submitted that Stowell et al. does not describe applying a bond reduction agent to a pre-formed thermally settable sheet or to a template for substantially preventing adherence of the sheet to the template. The cementitious coating of Stowell et al. is not a thermally settable sheet and there is no interaction in Stowell et al. between a template and such a sheet.

The Examiner has rejected claims 28-30 and 36 under 35 U.S.C. 103(a) as being unpatentable over Corbin et al. (US 4854771) in view of Stowell et al. (US 5215402) and further in view of Wiley (5,653,552). As indicated above, Wiley et al. relates to the field of heating asphalt to facilitate recycling thereof. Wiley et al. does not relate to the field of simulating cobblestone or brick and mortar patterns in asphalt or heating of pavement marking materials formed from thermoplastic. Accordingly, there would be no motivation for combining Wiley et al. with either of the other references as noted above.

Claim 28 has been amended in the same manner as claim 6 to provide an antecedent for the term "heater". As mentioned above in regard to claim 6, Wiley et al. does not

disclose an apparatus for heating thermally settable sheets and, in particular, does not disclose an apparatus comprising a heater mounted for movement relative to a support frame as recited in claim 28 as amended. With regard to claim 29, the Examiner contends that Wiley "teaches gradually heating the sheet to a temperature of 100-190°C". It is submitted that this is incorrect as Wiley does not disclose heating thermally settable sheets formed of thermoplastic. The passage identified by the Examiner at page 6 of the Office Action refers to heating asphalt rather than thermoplastic sheets. Similarly, the passage identified by the Examiner at column 7, lines 49-62 describes known apparatuses for heating asphalt surfaces rather than thermally settable sheets wherein the heater is mounted on a self-propelled vehicle which travels directly on the asphalt. With regard to claim 36, this claim corresponds to previous claim 6 which the Examiner previously indicated would be allowable if rewritten in independent form. Claim 36 has been amended in a manner similar to claims 6 and 28 and is similarly allowable.

In reply to the Examiner's provisional rejection of claims 1, 4, 6-12, 14-20, 22-30 and 36 based on double patenting, application No. 11/233,054 has been abandoned which obviates this rejection.

It is submitted that new claims 37-41 depend from an allowable base claim and are similarly allowable for the reasons submitted above. In regard to claim 37, it is submitted that none of the cited prior art references teach the advantages of placing a thermally settable sheet on an asphalt substrate after a pattern has been formed therein. Support for this claim can be found, *inter alia*, in paragraphs 28 and 34 and Figures 6 and 7. In regard to new claims 38-41, it is submitted that none of the prior art references teach heating the thermally settable sheet(s) *in situ* from a location above the sheets without contacting the sheets. Support for these claims can be found, *inter alia*, in paragraphs 32 and 33 of the application and Figure 3. As submitted above, Wiley et al. describes a self-propelled vehicle which traverses across the asphalt surface and is not adapted for heating thermoplastic sheets. Corbin et al. describes portable infrared heaters for heating asphalt, but does not describe heating preformed pavement marking material from a location above the marking material after it has been applied to the asphalt surface.

In summary, it is submitted that the Applicant's current claims are patentable over the cited references alone or in combination. Accordingly, the Applicant respectfully requests withdrawal of the rejections and allowance of this application. If the Examiner has any questions about this paper, or is not convinced that the claims are in condition for allowance, Applicant requests a personal interview with the Examiner.

Respectfully submitted,

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